

## CLAIMS:

1.           A method of modulating output light from a diode laser in which a first diode laser device (ML 1) injects light into a second diode laser device (SL 2), the second diode laser device (SL 2) producing an output light signal, characterized in that the output light signal has a wavelength dependent upon the wavelength of the light injected from the first diode laser device (ML 1).  
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2.           A method as claimed in claim 1, wherein the second diode laser device (SL 2) has an unmodulated output wavelength and a modulated output wavelength, the unmodulated output wavelength being output in the absence of light injected from the first diode laser device (ML 1), and the modulated output wavelength being output in the presence of light injected from the first diode laser device (ML 1).  
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3.           A method as claimed in claim 2, wherein the unmodulated output wavelength is longer than the modulated output wavelength.  
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4.           A method as claimed in claim 1, 2, or 3, wherein the first diode laser device (ML 1) is a low-power device.
5.           A method as claimed in claim 1, 2, or 3, wherein the second diode laser device (SL 2) is a high-power device.  
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6.           A method of writing information to an optical disc comprising outputting a light signal from a laser diode device (SL 2), the light signal being modulated in accordance with a method as claimed in any one of claims 1 to 5.  
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7.           A method as claimed in claim 6, wherein the information is written to the optical disc by supplying the light signal to a dye layer in the disc.

8. A method as claimed in claim 6, wherein the information is written to the optical disc by supplying the light signal to a layer in the disc, which layer has a light absorption coefficient that varies with the wavelength of incident light.

5 9. An apparatus for producing a modulated light signal, the apparatus comprising:  
a first diode laser device (ML 1) operable to produce a first output light signal;  
and  
a second diode laser device (SL 2) operable to produce a second output light  
10 signal and arranged to receive the first output light signal from the first diode laser device (ML 1) as an input light signal,  
characterized in that the second output light signal has a wavelength  
modulated in dependence upon the first output light signal.

15 10. An apparatus as claimed in claim 9, wherein the second diode laser device (SL 2) has an unmodulated output wavelength and a modulated output wavelength, the second diode laser device (SL 2) being operable to output the unmodulated output wavelength in the absence of light injected from the first diode laser device (ML 1) and to output the modulated  
output wavelength in the presence of light injected from the first diode laser device (ML 1).

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11. An apparatus as claimed in claim 10, wherein the unmodulated output wavelength is longer than the modulated output wavelength.

12. An apparatus as claimed in claim 9, 10, or 11, wherein the first diode laser  
25 device (ML 1) is a low-power device.

13. An apparatus as claimed in claim 9, 10, 11, or 12, wherein the second diode laser device (SL 2) is a high-power device.

30 14. An apparatus as claimed in claim 9, 10, 11, 12, or 13, wherein the first diode laser device (ML 1) is operable to inject the first output light signal into the second diode laser device (SL 2) via a polarizing beam splitter (PBS 8).

15. An apparatus as claimed in claim 14, wherein the first output light signal is supplied to the polarizing beam splitter (PBS 8) via a polarization adjustment device (4).

16. An apparatus for writing information to an optical disc, including an apparatus  
5 as claimed in any one of claims 9 to 15.